

CLAIMS

What is claimed is:

- 5 1. A method of mapping a travel route based on end point input and traffic conditions, said method comprising:

receiving a starting point and a destination;

- 10 receiving traffic information related to traffic flow conditions;

storing said traffic information in a map database, said map database also including static route information; and

- 15 accessing said mapping database to determine a travel route based on said static route information and said traffic information.

- 20 2. The method as set forth in claim 1 wherein receiving traffic information comprises monitoring a radio frequency at which traffic information is transmitted.

- 25 3. The method as set forth in claim 1 wherein said traffic information is in a computer readable format.

4. The method as set forth in claim 1 wherein storing traffic information comprises analyzing said received traffic information and providing a traffic change indicium
30 whenever a change is detected in said traffic information relevant to a current route.

5. The method as set forth in claim 4 and further including detecting a presence of said traffic change indicium wherein a route segment is automatically recalculated whenever said traffic change indicium is detected.

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6. The method as set forth in claim 1 wherein determining the travel route comprises comparing traffic flows on probable routes and selecting a travel route based on user time and distance preferences.

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7. The method as set forth in claim 1 wherein the travel route is audibly made available to a user.

8. The method as set forth in claim 1 wherein the travel route is made available to a user in a visual display.

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9. A computer readable medium containing a computer program, said medium being selectively operable when read by a reading device for providing program signals for mapping a travel route based on end point input and traffic conditions, said program signals being selectively operable for:

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enabling a receipt of a starting point and a destination;

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enabling a receipt of traffic information related to relatively current traffic flow conditions;

storing said traffic information in a map database, said map database also including static route information; and

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accessing said mapping database to determine a travel route based on said static route information and said traffic information.

5 10. The medium as set forth in claim 9 wherein receiving traffic information comprises monitoring a radio frequency at which traffic information is transmitted.

11. The medium as set forth in claim 9 wherein said traffic
10 information is in a computer readable format.

12. The medium as set forth in claim 9 wherein storing traffic information comprises analyzing said received traffic information and providing a traffic change indicium
15 whenever a change is detected in said traffic information relevant to a current route.

13. The medium as set forth in claim 12 and further including detecting a presence of said traffic change
20 indicium wherein a route segment is automatically recalculated whenever said traffic change indicium is detected.

14. The medium as set forth in claim 9 wherein determining
25 the travel route comprises comparing traffic flows on probable routes and selecting a travel route based on user time and distance preferences.

15. The medium as set forth in claim 9 wherein the travel
30 route is audibly made available to a user.

16. The medium as set forth in claim 9 wherein the travel route is made available to a user in a visual display.

17. An information processing system for mapping a travel route based on user end point input and current traffic conditions, said end point input defining a start point and a destination point for said travel route, said information processing system comprising:

10 processing means;

input means coupled to said processing means, said input means being arranged for enabling a user to provide said end point input to said processing means;

15 storage means coupled to said processing means, said storage means containing a map database containing static route information, said static route information being accessible by said processing means;

20 receiving means coupled to said storage means, said receiving means being selectively operable for receiving traffic information related to said current travel conditions and storing said traffic information in said map database, said processing means being selectively operable for providing said travel route based upon said end point input and said traffic information.

25 18. The information processing system as set forth in claim 30 17 and further including means for communicating said travel route to said user.

19. The information processing system as set forth in claim 18 wherein said travel route is audibly communicated to said user.

5 20. The information processing system as set forth in claim 18 wherein said travel route is visually communicated to said user.

21. The information processing system as set forth in claim
10 18 wherein said travel route is communicated to said user both audibly and visually.

22. A method for automatically updating a selected travel route for a vehicle whenever a change in related traffic
15 conditions is detected, said method comprising:

determining said selected travel route based upon a first traffic condition;

20 receiving traffic information including a current traffic condition applicable to said selected travel route;

detecting a change from said first traffic condition to said current traffic condition; and

25 recalculating said travel route based upon said current traffic condition.

23. The method as set forth in claim 22 wherein said
30 recalculating is accomplished whenever said change exceeds a predetermined threshold value.

24. The method as set forth in claim 23 wherein said recalculating is accomplished whenever said change exceeds said predetermined threshold value for a predetermined period of time.

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25. A method for automatically updating a selected travel route for a vehicle whenever said vehicle strays from a selected travel route, said method comprising:

10 determining said selected travel route, said selected travel route comprising a series of travel points along said selected travel route;

15 receiving current position information related to a current position of said vehicle;

comparing said current position information with said selected travel route; and

20 recalculating said travel route to provide a new travel route whenever said current position is not along said selected travel route.

25 26. The method as set forth in claim 25 wherein said current position information is received from a global positioning system (GPS).

30 27. The method as set forth in claim 26 wherein said current position information is received from said GPS on a continuing basis.

28. The method as set forth in claim 25 wherein said recalculating is accomplished using said current position as a starting point for said new travel route.

- 5 29. The method as set forth in claim 25 wherein said selected travel route is based upon a first traffic condition, said method further including:

10 receiving traffic information including current traffic conditions applicable to said selected travel route;

detecting a change in traffic conditions from said first traffic condition to said current traffic condition; and

- 15 recalculating said travel route whenever predetermined changes are detected in either said traffic conditions or whenever said current position is not along said selected travel route.